DRAFT

Removal Action Work Plan for Soil Impacted by Lead-Based Paint

West and North University Villages
Former Fort Ord
Marina, California

January 31, 2006

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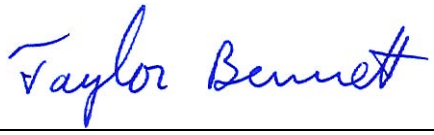

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1.0 INTRODUCTION

This Removal Action Work Plan (RAW) for Soil Impacted by Lead-Based Paint has been prepared by Northgate Environmental Management, Inc. (Northgate) on behalf of Pacific States Environmental Contractors, Inc. (Pacific States) and Marina Community Partners, LLC (Marina Community Partners) for a portion of Fort Ord, a former U.S Army training facility located near the town of Marina in Monterey County, California (the Site).

1.1 Purpose of the RAW

The purpose of this RAW is to describe the procedures for the removal of soil impacted by lead-based paint (LBP) surrounding buildings at the Site. This removal action is being performed in accordance with the Voluntary Cleanup Agreement (VCA) between Marina Community Partners and the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC).

1.2 Organization

The RAW is organized as follows:

- **Section 2.0** presents background information, including the Site description and history, planned future land uses, a summary of regulatory communications leading up to the preparation of this RAW, and a discussion of Removal Action Objectives (RAO).
- **Section 3.0** summarizes the results of previous soil investigations to assess the impacts to soil from LBP.
- **Section 4.0** presents the methods and procedures for the soil removal action and confirmation soil sampling.
- **Section 5.0** presents the schedule for the removal action.

2.0 BACKGROUND

2.1 Site Description

Fort Ord is an approximate 46 square-mile (28,000 acre) former U.S. Army installation in northwestern Monterey County, California. The installation is bounded on the north and east by the Salinas River alluvial basin, on the west by the Monterey Bay, and on the south by the Santa Lucia Range. The cities of Marina and Seaside are adjacent to Fort Ord on the northwest and southwest corners, respectively. The local terrain consists of gently rolling hills of active and older dune sand deposits. Figure 1 shows the location of Fort Ord and the surrounding areas.

The portion of the installation that is the subject of this RAW is adjacent to Highway 1 and the California State University—Monterey Bay campus, and encompasses approximately 290 acres (Figure 2). Approximately 570 structures occupy this portion of the installation. Most of the structures were built according to a few standard design types, and consist of very similar one- and two-story wood-frame buildings ranging in area from approximately 750 to 2,250 square feet (ft^2). These buildings are generally surrounded by soil on three to four sides, with varying amounts of vegetation. However, the ground surface around some of these structures is entirely asphalt or concrete pavement.

Other buildings at the Site that do not conform to one of the standard designs are from one to three stories high and range from small outbuildings with areas less than 200 ft^2 to large structures with areas up to approximately 27,000 ft^2. These buildings consist of various construction types, including wood- and steel-frames, corrugated steel, and masonry (e.g., brick, cinder-block, or concrete).

2.2 Site History

The U.S. Army purchased 15,000 acres of land for maneuver and training ground for artillery and cavalry troops in 1917. In the late 1930s, permanent improvements were made. An additional 15,000 acres were purchased in 1938 for the development of the Main Garrison, which was constructed between 1940 and the 1960s. Greater than 90 percent of the buildings were constructed between 1940 and 1945. Fort Ord, when active, employed approximately 15,000 active duty military personnel and 5,000 civilian employees.

The U.S. Environmental Protection Agency (U.S. EPA) placed Fort Ord on the National Priorities List on February 21, 1990. On July 1, 1991, the Base Realignment and Closure (BRAC) Commission recommended closure of Fort Ord.

As a result of the decision to close Fort Ord, a Base Reuse Plan (BRP) was formulated to achieve three strategic goals: (1) environmental protection, (2) economic development, and (3) education. To document the environmental suitability of the University Village parcels and other property at Fort Ord, BRAC issued a Finding of Suitability to Transfer (FOST) on May 16, 2003. The list of documents reviewed to support the FOST represents the administrative record for the purposes of this RAW.

2.3 Future Land Use

The BRP identifies the approximately 290-acre portion of Fort Ord that is the subject of this RAW as a planned development/mixed-use district. Future development of the Site is planned for mixed residential and commercial uses and will include schools and parks. Current plans call for the redevelopment of this area to be conducted in three phases. The first phase of development (Phase 1) will be the commercial business district, located in the northwest portion of the parcel (Figure 2). Phases 2 and 3 are planned for residential development, combined with parks and schools to serve the residential area.

2.4 Regulatory Communications

Representatives of DTSC, Marina Community Partners, Pacific States, and Northgate discussed the approach for evaluating the possible impacts of LBP to soil surrounding the existing buildings during a meeting on June 13, 2005 and in a subsequent conference call on July 26, 2005. Because DTSC recognized that most of the approximately 570 buildings at the Site are built according to a few standard designs with the same wood-frame construction and history of use, it was agreed that the soil surrounding a representative sample of 5 percent of the buildings would be tested for impacts from LBP. DTSC approved using a soil screening level of 203 milligrams per kilogram (mg/kg) for total lead at the Site; this is the same soil screening level that DTSC approved for the East Garrison area of Fort Ord.

Northgate prepared a *Sampling and Analysis Plan for Lead-Based Paint Impacts to Soil* (SAP; Northgate, 2005) to describe the methods and procedures for collecting and analyzing soil samples, and evaluating the results. As discussed in Section 3.0, the results of the pre-demolition sampling were summarized in a letter to Pacific States dated December 14, 2005, a copy of which was provided to Theresa McGarry of DTSC on December 21, 2005.

The results of pre-demolition sampling and the approach for conducting a soil removal action were discussed at a meeting with representatives of Pacific States, Marina Community Partners, Northgate, and DTSC on January 4, 2006. During the meeting, it was agreed that Northgate would collect

additional soil samples to obtain a depth profile of lead concentrations in soil at two of the buildings with the highest concentrations of lead reported from the pre-demolition sampling, and would collect samples from below the asphalt pavement adjacent to three buildings in the Phase 1 portion of the Site. The results of the depth profile samples are used to determine the depth of soil removal around the buildings, as discussed in Section 4.1 of this RAW. The scope of the additional sampling was presented in an e-mail message to Ms. Theresa McGarry of DTSC on January 6, 2006 and approved by Ms. McGarry in an e-mail message on January 9, 2006. This scope of work was then documented in a letter addendum to the SAP dated January 24, 2006. The results of the pre-demolition sampling and additional sampling performed in accordance with the addendum to the SAP are presented in Section 3.0 of this RAW.

During the January 4, 2006 meeting with representatives of Pacific States, Marina Community Partners, Northgate, and DTSC, it was agreed that post-removal action confirmation sampling would be conducted at 5 percent of the demolished buildings. DTSC requested that one of the batches of laboratory data for confirmation sampling include a Level 3 data package, which provides additional information regarding instrument calibration and other laboratory quality control parameters.

The methods for demolishing existing buildings were discussed during meetings with DTSC on June 13, 2005 and January 4, 2006. Methods to reduce the potential impacts from LBP to soil during demolition of the buildings are presented in Section 4.2 of this report.

2.5 Removal Action Objectives

There are two RAOs for this RAW:

- The first RAO is to remove soil impacted by LBP so that the 95% UCL of lead concentrations in soil remaining in-place does not exceed 203 mg/kg. This RAO is the same as the soil screening level that DTSC previously approved for the East Garrison area of Fort Ord.
- The second RAO is to remove soil with concentrations of total lead exceeding the U.S. EPA's preliminary remediation goal (PRG) of 400 mg/kg for residential land use.

The completion of the removal action will be confirmed by collecting soil confirmation samples at 5 percent of the buildings, at the same locations where pre-demolition samples were collected from unpaved soil under the drip-lines adjacent to the buildings (Section 3.0).

3.0 SUMMARY OF SOIL INVESTIGATIONS FOR LBP IMPACTS

This section of the RAW summarizes the results of previous investigations to assess LBP impacts to soil at the Site. Pre-demolition sampling was conducted on November 7 through November 9, 2005 and November 17, 2005, in accordance with the SAP. Additional sampling was conducted on January 10, 2006, in accordance with the addendum to the SAP.

3.1 Scope of Previous Sampling and Analysis for LBP Impacts

As presented in the SAP (Northgate, 2005), the approach for pre-demolition sampling was to identify a representative number of buildings by randomly selecting 5 percent of the approximately 570 buildings at the Site. Soil samples were collected adjacent to approximately 5 percent of each of the structure types that have similar construction to ensure that a representative cross-section of buildings would be evaluated.

3.1.1 Pre-Demolition Sampling

Pre-demolition soil samples were collected on November 7 through November 9, 2005 and November 17, 2005, as follows:

- Two to four surface soil samples (from 0 to 6 inches in depth) were collected at each of the selected buildings. For example, two soil samples were collected adjacent to buildings with areas less than approximately 1,200 ft^2 and four soil samples were collected adjacent to buildings with areas greater than approximately 1,200 ft^2. For buildings with footprints greater than 16,000 ft^2, one sample per 4,000 ft^2 of area was collected. Soil samples were collected below the drip-lines of the buildings.
- At a subset of approximately 25 percent of the selected buildings, soil samples were collected at "step-out" locations 3 to 6 feet beyond the drip-lines of the building, to assess the lateral extent of possible LBP impacts to soil.
- Twenty additional discrete soil samples were collected along surface drainage pathways to assess whether lead was present in sediment transported by runoff.

The sample locations were placed in areas with the highest likelihood of lead deposits being present (e.g., under windows, doors, porches, stairs, and/or drainage areas). The lateral distance of sample locations from the building foundation were determined based on reconnaissance to observe the building features (e.g., drip-lines, downspouts, drainage pathways, etc.). In accordance with the SAP, pre-demolition samples were not initially collected adjacent to buildings that are surrounded by pavement (Northgate, 2005).

The surface samples from each building were composited by the laboratory prior to analysis for lead (i.e., samples collected at the drip-lines were composited, and step-out samples that were approximately equidistant from the drip-line were composited). Using these guidelines, the total number of pre-demolition soil samples analyzed for the three development phases was 54 composite samples (composed of 192 discrete samples) and 20 discrete samples.

3.1.2 Additional Sampling

Additional soil samples were collected on January 10, 2006, in accordance with the addendum to the SAP (Northgate, 2006).

3.1.2.1 Sampling Below Pavement

Four discrete soil samples were collected at the drip-line under the asphalt adjacent to each of three buildings (building nos. 2434, 2717, and 2925) in the Phase 1 portion of the Site (Figure 2). These buildings were initially selected for pre-demolition sampling, but were not sampled when it was determined that they were surrounded by asphalt pavement. Two of the buildings (2434 and 2717) were demolished prior to January 10, 2006, while building 2925 was still standing and in use. Samples were collected immediately below the asphalt pavement, which was approximately 2 inches thick (0.15 foot). The samples from each building were composited by the laboratory and analyzed for total lead.

3.1.2.2 Sampling at 6- and 12-Inch Depths

Soil samples were collected at two buildings (1901 and 1787) for depth profiling of lead concentrations where the highest concentrations of lead were previously detected in pre-demolition surface samples (Section 3.2 and Figure 2). Discrete soil samples were collected at depths of approximately 6 and 12 inches at each location. Soil samples from equivalent depths at each building were composited by the laboratory for analysis of total lead.

3.2 Results of Soil Investigations for LBP Impacts

3.2.1 Results of Pre-Demolition Sampling

The analytical results of pre-demolition sampling are summarized in Table 1. The concentrations of lead in the 54 composite samples collected adjacent to buildings (including step-out locations) ranged from 43 mg/kg to 1,700 mg/kg. The concentrations of lead in discrete samples collected along drainage pathways ranged from 23 mg/kg to 270 mg/kg.

The concentrations of lead in the composite step-out locations ranged from 55 mg/kg to 580 mg/kg. Three of the 16 step-out locations (samples identified in Table 1 as "CS-XXXX-B-COMP" or "CS-XXXX-C-COMP," where "XXXX" represents the building number) contained lead at concentrations above the 203 mg/kg screening level and one of the step-out soil samples contained lead at a concentration greater than 400 mg/kg. This was a composite step-out sample collected six feet outside the drip-line of building 2392. With this exception, the concentrations of lead generally decreased with increasing distance from the buildings.

As discussed in the SAP, Northgate calculated the 95 percent upper confidence limit (95% UCL) of the mean of total lead concentrations and compared it to the soil screening level approved by DTSC (203 mg/kg). Considering only the samples collected adjacent to buildings, the 95% UCL of the mean of total lead concentrations is 267 mg/kg, which exceeds the soil screening level of 203 mg/kg. If the soil samples collected along drainage pathways are included, the 95% UCL of the mean of total lead concentrations is 221 mg/kg, which also exceeds the soil screening level of 203 mg/kg.

The 95% UCL for all of the step-out locations is approximately 240 mg/kg. If the 6-foot step-out result at building 2392 (580 mg/kg) is excluded, the 95% UCL for the step-out samples is 186 mg/kg.

3.2.2 Results of Additional Sampling

The concentrations of lead in composite soil samples collected from below the asphalt pavement adjacent to buildings 2434, 2717, and 2925 ranged from 10 to 120 mg/kg, which did not exceed the soil screening level of 203 mg/kg.

The concentrations of lead in composite soil samples collected at depths of 6 and 12 inches at buildings 1901 and 1787 ranged from 80 mg/kg to 140 mg/kg, which is substantially less than the concentrations measured in surface samples, and is less than the soil screening level of 203 mg/kg.

4.0 REMOVAL ACTION

Preparation of this RAW included a qualitative evaluation of remedial alternative and technologies that could be used to remediate lead-impacted soil. To achieve the identified cleanup goals, the draft Removal Action Workplan (RAW) evaluated four alternatives as described below.

Alternative 1 - No Action Alternative. Under this alternative no removal actions would be implemented at the site and property usage would be restricted. DTSC requires evaluation of this alternative to establish a baseline against which all other alternatives can be compared.

Alternative 2 - Capping with Institutional Controls. This alternative involves placing a cover (barrier) over the affected soil. The cap would be designed to isolate the affected soil and minimize or prevent exposure to hazardous chemicals in site soil. To maintain the cap and regulate intrusive activities following installation of the cap, institutional controls in the form of deed notifications and/or restrictions would be implemented in combination with installation of the cap.

Alternative 3 - Excavation and Off-site Disposal. Excavation and off-site disposal would include removal of soils with concentrations in excess of cleanup levels. The soils would be disposed of at an appropriately permitted landfill (Class 1 or 2).

Alternative 4 - Excavation, Treatment Reuse and/or Disposal. Excavation, treatment and reuse would include excavation of soils with concentrations exceeding cleanup levels. The excavated soils would be screened to remove oversize materials and debris. Screened materials would be sampled to determine reuse options or disposal requirements. Soil containing lead at concentrations less than the cleanup goals would be backfilled in designated areas on-site. The soil material that contains concentrations greater than hazardous waste levels would be treated on-site and disposed of at an appropriate landfill.

The alternatives were evaluated based on effectiveness, ease of implementation, and cost. The goal of the removal action is to complete the construction at the site in a manner that is protective of the public health and the environment by preventing contact with the soil.

Based on the results of the evaluation of each alternative, Alternative 3 is the most cost-effective and implementable alternative that provides both short term and long-term protection of human health and the environment. Therefore, Alternative 3 is recommended.

4.1 Removal Action Overview

On the basis of the soil sampling previously conducted at 5 percent of the buildings, approximately 7,900 cubic yards of lead-impacted soil will be removed around all buildings that are not surrounded by pavement. This process will include soil removal by excavation, collection and analysis of confirmation samples from the excavation, soil management and waste characterization, transportation and offsite disposal, and submittal of a report to the DTSC documenting the results of the removal action.

As discussed in Section 3.0, previous investigation results indicate that the concentrations of lead in soil decrease with increasing distance from the buildings and decrease with depth below the ground surface. These results indicate that removing the upper six inches of soil around the building footprints to a distance of 3 feet outward from the drip-lines of the buildings will be sufficient to reduce the 95% UCL of the mean concentrations of lead in soil remaining in-place to below the RAO of 203 mg/kg.

Confirmation soil samples will be collected from the surface of the excavation at the same locations where pre-demolition samples were collected adjacent to the buildings (Section 3.0). This confirmation sampling program will allow a comparison of pre-demolition and post-removal action lead concentrations in soil and provide a representative cross-section of the types of buildings found at the Site. To assess whether the RAO has been achieved (95% UCL of total lead concentrations in soil remaining in-place less than 203 mg/kg), the results of confirmation soil sample analyses will be pooled with the results of pre-demolition step-out samples, and the 95% UCL of the pooled results will be calculated.

The results of additional samples collected on January 10, 2006 adjacent to buildings surrounded by asphalt pavement indicate that soil beneath the pavement is not impacted by LBP. The pavement surrounding these buildings will not be removed until demolition of these buildings is complete, and other measures to reduce the potential impacts to soil from LBP during demolition are being implemented as discussed in Section 4.2. Therefore, soil removal will not be performed around buildings surrounded by pavement and confirmation soil samples will not be collected around these buildings.

4.2 Building Demolition

To reduce the potential for further impacts to soil from LBP during demolition of the buildings, the following measures are being employed:

- Before demolition, loose paint is scraped from the buildings and collected on plastic sheeting placed around the buildings;

- Dust-control measures include wetting the building surfaces before and during demolition;
- The buildings that are not surrounded by pavement are cut into relatively large sections and transported to a centralized facility located on pavement at the Site for further processing; and
- Demolition is being performed in accordance with the Demolition Permitting Submittals (Decon, Inc., 2005) approved by the the City of Marina and the Monterey Bay Unified Air Pollution Control District.

4.3 Soil Excavation

Before excavation begins, the lateral limits of the area to be excavated around each building will be marked with stakes, flagging, and/or orange paint. The excavation area will extend to approximately 3 feet outside the drip-line around the building, unless pavement or other hard, low-permeability surface is present within this perimeter. Soil will not be removed adjacent to the buildings where pavement or other hard, low-permeability surface is present. The project schedule calls for between 35 and 40 days of actual soil remediation.

Using a backhoe, loader, or other suitable equipment, the top six inches of soil surrounding the demolished buildings will be removed. Excavation will continue outward approximately 3 feet from the drip-line of the building unless pavement or other hard, low-permeability material covering the ground surface is encountered first. A water truck will be used for dust control along the building perimeters, as needed. Real-time perimeter dust monitoring will be conducted until dust control methods have been proven effective. Excavated soil will be loaded directly into trucks for delivery to the soil staging area.

Confirmation soil sampling is described in Section 4.4, below. If confirmation sampling indicates that the RAOs have not been met after 6 inches of soil has been removed around the buildings, additional soil will be excavated from areas with elevated lead concentrations in 6-inch lifts until confirmation sampling indicates the RAOs have been achieved.

The soil removal equipment will be decontaminated prior to leaving the Site. The equipment will be dry brushed to remove any excessive soil. Care will be taken not to drive excavation equipment over areas that will be or have already been excavated, to avoid transporting LBP impacted soil from one area of the Site to another.

4.4 Confirmation Sampling

Upon completion of the removal of soil, soil confirmation samples will be collected at 5 percent of the buildings to confirm that the 95% UCL of the lead concentrations in soil remaining in-place is below the DTSC cleanup goal of 203 mg/kg. Confirmation soil samples will be collected at the

same locations at the same buildings from which pre-demolition samples were collected from unpaved areas. Samples will be collected with a stainless steel trowel and placed in laboratory supplied glass sample jars. Sample containers will be covered with Teflon-lined plastic screw caps, labeled, sealed, and stored in an insulated container with ice for transport under chain of custody procedures to a state-certified analytical laboratory for total lead analysis by EPA Method 6010B.

If the 95% UCL of total lead concentrations exceeds the first RAO (203 mg/kg) when the results of confirmation samples are pooled with the results of pre-demolition step-out samples, additional soil will be removed in 6-inch lifts until confirmation soil samples indicate that the RAO has been achieved. If the 95% UCL does not exceed the first RAO, but one or more confirmation sample results exceed the second RAO (greater than the PRG of 400 mg/kg for residential land use), the following steps will be taken:

- The laboratory will be requested to re-extract and analyze another aliquot of the soil sample to confirm the initial analytical result;
- If the reanalysis results are less than 400 mg/kg total lead, the results will be reviewed with DTSC representatives; and
- If the reanalysis results are greater than 400 mg/kg total lead, additional soil will be removed in 6-inch lifts and confirmation samples will be analyzed, until the second RAO (no confirmation samples with lead exceeding 400 mg/kg) is achieved.

For each confirmation sample, a sketch or description of the sample location and observations such as the presence of visible paint chips will be recorded in a field notebook or field sampling forms. All sampling equipment will be decontaminated prior to use and between each sample location. It will be washed in a low-phosphorus soap solution and rinsed with deionized water using spray bottles. Because the volume of decontamination water is expected to be very small (less than five gallons), decontamination water will be disposed on the excavated soil that will be transported and disposed off-site, as discussed in Section 4.5.

4.5 Soil Staging, Waste Characterization, and Disposal

4.5.1 Soil Staging

Excavated soil will be loaded directly into trucks and transported to a designated on-site stockpile area and placed in stockpiles with volumes of approximately 1,000 cubic yards (cy) for staging and waste characterization sampling. Soil generated during each phase of work will be staged for 4-5 weeks in this fully fenced facility until an off-haul event can be scheduled. The designated stockpile area is located at the northeast corner of 8th Street and 1st Avenue, within the Site

security fence (Figure 3). The primary route to transport excavated soil to the stockpile area will be along 1st Avenue. A layer of base rock will be placed in the entry to the stockpile area. A water truck will be used for dust control along the transportation route, as needed. Real time perimeter dust monitoring will be conducted until dust control methods have been proven effective. The stockpile area is paved with 4-inch thick asphalt and will be surrounded by "K-rail" concrete barriers with filter fabric on the inside, facing the soil stockpiles. Other "best management practices" (BMPs) that will be implemented to control stormwater runoff include protection of storm drain inlets and placement of silt fence on the downslope side of the stockpile area. Soil piles will be sprayed with a water truck or covered with plastic sheeting, if necessary, to control dust.

After the soil stockpiles are removed, the asphalt pavement and base rock in entrance to the stockpile area will be removed and recycled or disposed at an approved facility.

4.5.2 Waste Characterization

Soil samples for waste characterization will be collected at the frequency of one four-point composite soil sample for each 1,000 cubic yards (cy) of soil, or at the frequency required by the disposal facility accepting the material. To collect the samples, at least 1 foot of surface soil will be removed and a clean, stainless steel hand trowel will be used to collect a sample from the exposed soil. The soil will be placed in laboratory-supplied glass jar with a Teflon-lined lid. This procedure will be repeated at four different locations in the stockpile. The samples will be handled in the same manner as described above for the confirmation samples and delivered to the lab for compositing and testing.

Each stockpile sample will be tested for total lead. If total lead results exceed 50 milligrams per kilogram (mg/kg), soluble lead will also be analyzed using the California Environmental Protection Agency's (Cal EPA) Soluble Threshold Limit Concentration (STLC) and federal Toxic Characteristics Leaching Procedure (TCLP). The STLC and TCLP threshold concentration is 5 milligrams per liter (mg/l).

4.5.3 Soil Disposal

The stockpiled soil will be loaded, transported off-Site, and disposed of at an appropriately permitted landfill based on the laboratory analytical results. A water truck will be used for dust control during the loading of trucks and along the transportation routes. Real time perimeter dust monitoring will be conducted until dust control methods have been proven effective. If the stockpile sample lead concentration exceeds the TTLC, STLC or TCLP, the soil will be classified as a hazardous waste, manifested, and transported to a permitted Class I landfill for disposal.

RCRA and non-RCRA hazardous waste will be disposed at the following Class I landfill:

Kettleman Hills Landfill Facility	Chemical Waste Management
Facility Address:	Highway 17 North, Mile Marker 163 Kettleman City, California 93239
Point of Contact:	Brian Mansfield
Telephone:	(559) 386-9711

The following facility has been identified for receiving excavated material determined to be non-hazardous (Class II and Class III).

Altamont Landfill and Resource Recovery Facility	Waste Management, Inc.
Facility Address:	10840 Altamont Pass Road Livermore, California 94551
Point of Contact:	Peggie Friddle
Telephone:	(925) 449-6349

Maps illustrating the route from the Site to these landfill facilities and the estimated travel times are shown on Figures 4 and 5.

The soil will be hauled off-site over a period of 3 years depending on the phasing of the development. There will be only 10-15 actual days of off-site hauling and all wastes will be transported in fully tarped trailers. After the loading, tarping and manifesting (listing of cargo, including hazardous waste cargo) of the trucks containing the lead-impacted soils, the trucks will use internal streets within University Village until turning west on Imjin Parkway, then turning north on State Highway 1, then east on State Highway 152 until reaching State Highway 101.

Trucks containing non-hazardous soils will continue heading north on State Highway 101, then north again on Interstate 680, then east on Interstate 580 until reaching the exit for the Altamont Landfill.

Trucks containing hazardous soils will continue on State Highway 152, then turn south on Interstate 5 until reaching the exit for Chemical Waste Management. The specific routes are shown on Figure 5.

Daily work hours are anticipated to be limited to 7 a.m. to 5 p.m.

Materials designated for off-site disposal will be transported from the Site in accordance with applicable regulations, including 49 Code of Federal Regulations (CFR) Parts 100–199 and

350-399 (42 U.S. Code 6901, et seq.); 40 CFR Parts 260–268; California Vehicle Code; California Hazardous Waste Control laws; and Health and Safety Code, Division 20 (22 CCR, Division 4.5).

Based on analytical results, materials classified as hazardous waste will be handled and transported in accordance with CCR Title 22, which includes waste generator requirements (i.e., manifests) and hazardous waste transporter requirements (i.e., valid registration, proof of insurance, and inspection of vehicles by the California Highway Patrol [CHP]).

Waste materials will be transported in DOT-approved bins, placarded trucks and/or steel containers. The type of vehicles used to transport material from the work area will depend on the material characterization results and may include end-dump trucks, truck tractors that transport bins, and/or pin trailers pulled by a tractor.

Vehicles will be decontaminated and inspected by Pacific States' field personnel, or designated subcontractor, prior to leaving the area to verify they have been properly decontaminated, placarded in compliance with DOT requirements, and that the driver has all required documentation (e.g., manifest and contingency plan, as appropriate).

4.6 Reporting

Upon completion of the removal action, a Removal Action Completion Report will be prepared documenting the removal action. This report will contain a description of soil removal and confirmation sampling procedures and tables presenting the previous and confirmation sample results. The report will evaluate the residual concentrations of lead in soil remaining in-place by calculating the 95% UCL of the pooled results of final confirmation soil samples and step-out soil samples collected during pre-demolition sampling.

4.7 Decontamination Waste Disposal

Solids generated by decontamination procedures described above will be collected on plastic sheeting and transferred to soil stockpiles for testing and disposal with the excavated soils.

4.8 Quality Assurance and Data Validation

Quality Assurance and Quality Control (QA/QC) procedures to be used by the laboratory will include analysis of method blanks, duplicates, matrix spikes (MS) and laboratory control samples (LCS). As requested by DTSC (Section 2.4), one of the batches of laboratory data will include a Level 3 data package which includes initial calibration and calibration verification summarries for each instrument and analytical sequence, copies of instrument run logs, and sample preparation benchbook entries. A review of the laboratory's internal QC results will include an evaluation of

laboratory duplicates, matrix spike, and duplicate percent recoveries, method blanks, and laboratory control standards. Table 2 presents quality control limits to be used in evaluating the data (U.S. EPA, 2004). Appropriate qualifiers will be applied to the data, as necessary, based on the data validation review. At least one batch of samples analyzed by the laboratory will include a Level 3 QC data package.

Laboratory analytical results and QC data will be reported as electronic data deliverables (EDDs) to reduce the potential for transcription errors. EDDs will be entered into a database to facilitate data retrieval and evaluation. Data validation will include a review of field procedures and documentation for completeness and accuracy; verification of appropriate custody control of samples; and a review of laboratory records to verify that appropriate sample preservation and holding times are achieved.

5.0 SCHEDULE

5.1 Public Participation

Marina Community Partners is committed to working with the community and other stakeholders on this project. A public notice announcing the start of the 30-day public comment period for this RAW will be published in a local newspaper in the Site area. A community profile has been completed by the Army, based on a baseline community survey, and will be used, as appropriate, for this RAW. Additionally, Marina Community Partners will prepare and distribute a Fact Sheet describing the proposed removal activities. Copies of the draft RAW will be placed in the existing information repositories established by the Army, including the BRAC office, the Seaside library, and the California State University–Monterey library. At the conclusion of the public comment period, Marina Community Partners will assist DTSC in preparing a written responsiveness summary to address comments received on the draft RAW.

5.2 Removal Action

The soil removal action will begin after DTSC approval of this RAW and the required 30-day public comment period, and after public comments are addressed. The soil removal action may be conducted in phases, after building demolition is completed in each of the three phase areas.

It is anticipated that each removal action phase will be completed within four to six weeks after initiating the excavation of lead impacted soil.

5.3 Reporting

A Removal Action Completion Report will be submitted to the DTSC for its review and approval within six weeks after the removal action has been completed.

6.0 REFERENCES

Base Realignment and Closure Commission, 2003, Finding of Suitability to Transfer (FOST), Track 0 Parcels, Former Fort Ord, California, May.

Decon, Inc., 2005, Demolition Permitting Submittals, July 20.

Northgate Environmental Management, Inc., 2005, Sampling and Analysis Plan for Investigation of Lead-Based Paint Impacts to Soil, West and North University Villages, Marina, California, October 4, revised on October 13, October 17, and November 11.

Northgate Environmental Management, Inc., 2006, Addendum to Sampling and Analysis Plan for Investigation of Lead-Based Paint Impacts to Soil, West and North University Villages, Marina, California, January 24.

U.S. Environmental Protection Agency, 2004, Office of Superfund Remediation and Technology Innovation, *U.S. EPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*, OSWER 9240.1-45, EPA 540-R-04-004, October.

TABLES

TABLE 1
Analytical Results of Previous Investigations for Lead-Based Paint Impacts to Soil
Removal Action Work Plan for Soil Impacted by Lead-Based Paint

Discrete Sample ID	Composite Sample ID	Date	Depth (ft. bgs)	Step-Out Distance from Dripline (feet)	Building No.	Lead (mg/kg)
Building Perimeter Samples						
SS-2409-W1A4-0.0	CS-2409-A-COMP	11/7/2005	0	0	2409	360
SS-2409-E1A1-0.0		11/7/2005	0	0		
SS-2438-S1A1-0.0	CS-2438-A-COMP	11/7/2005	0	0	2438	260
SS-2438-E1A1-0.0		11/7/2005	0	0		
SS-2438-W1A1-0.0		11/7/2005	0	0		
SS-2438-N1A1-0.0		11/7/2005	0	0		
SS-2438-S1B5-0.0	CS-2438-B-COMP	11/7/2005	0	4	2438	270
SS-2438-E1B5-0.0		11/7/2005	0	4		
SS-2438-W1B5-0.0		11/7/2005	0	4		
SS-2438-N1B5-0.0		11/7/2005	0	4		
SS-2438-N1C8-0.0	CS-2438-C-COMP	11/9/2005	0	7	2438	200
SS-2438-E1C8-0.0		11/9/2005	0	7		
SS-2438-S1C8-0.0		11/9/2005	0	7		
SS-2382-E1A2-0.0	CS-2382-A-COMP	11/7/2005	0	0	2382	210
SS-2382-S1A1-0.0		11/7/2005	0	0		
SS-2382-W1A2-0.0		11/7/2005	0	0		
SS-2382-N1A3.5-0.0		11/7/2005	0	0		
SS-2313-E1A2-0.0	CS-2313-A-COMP	11/7/2005	0	0	2313	180
SS-2313-W1A2-0.0		11/7/2005	0	0		
SS-2187-W1A2.5-0.0	CS-2187-A-COMP	11/7/2005	0	0	2187	110
SS-2187-E1A2-0.0		11/7/2005	0	0		
SS-2144-W1A3-0.0	CS-2144-A-COMP	11/7/2005	0	0	2144	130
SS-2144-N1A3-0.0		11/7/2005	0	0		
SS-2144-E1A3-0.0		11/7/2005	0	0		
SS-2144-S1A3-0.0		11/7/2005	0	0		
SS-2150-W1A3-0.0	CS-2150-A-COMP	11/7/2005	0	0	2150	120
SS-2150-N1A3-0.0		11/7/2005	0	0		
SS-2150-E1A3-0.0		11/7/2005	0	0		
SS-2150-S1A3-0.0		11/7/2005	0	0		
SS-2237-S1A4-0.0	CS-2237-SWA-COMP	11/7/2005	0	0	2237	43
SS-2237-S2A4-0.0		11/7/2005	0	0		
SS-2237-W1A2-0.0		11/7/2005	0	0		
SS-2237-W2A2-0.0		11/7/2005	0	0		
SS-2237-N1A3-0.0	CS-2237-NEA-COMP	11/7/2005	0	0	2237	48
SS-2237-N2A3-0.0		11/7/2005	0	0		
SS-2237-E1A3-0.0		11/7/2005	0	0		
SS-2365-E1A2-0.0	CS-2365-A-COMP	11/7/2005	0	0	2365	470
SS-2365-W1A3-0.0		11/7/2005	0	0		
SS-2365-W2A2-0.0		11/7/2005	0	0		
SS-2365-S1A1-0.0		11/7/2005	0	0		
SS-2812-E1A2-0.0	CS-2812-A-COMP	11/8/2005	0	0	2812	86
SS-2812-W1A2-0.0		11/8/2005	0	0		
SS-2855-S1A4-0.0	CS-2855-A-COMP	11/8/2005	0	0	2855	150
SS-2855-E1A7.5-0.0		11/8/2005	0	0		
SS-2855-N1A3-0.0		11/8/2005	0	0		
SS-2855-W1A3-0.0		11/8/2005	0	0		
SS-2908-E1A3-0.0	CS-2908-A-COMP	11/8/2005	0	0	2908	230
SS-2908-N1A4-0.0		11/8/2005	0	0		
SS-2908-W1A3-0.0		11/8/2005	0	0		
SS-2908-S1A3-0.0		11/8/2005	0	0		

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Discrete Sample ID	Composite Sample ID	Date	Depth (ft. bgs)	Step-Out Distance from Dripline (feet)	Building No.	Lead (mg/kg)
SS-2868-E1A3-0.0	CS-2868-A-COMP	11/8/2005	0	0	2868	260
SS-2868-S1A3-0.0		11/8/2005	0	0		
SS-2868-W1A3-0.0		11/8/2005	0	0		
SS-2868-N1A4-0.0		11/8/2005	0	0		
SS-2797-N1A2-0.0	CS-2797-A-COMP	11/8/2005	0	0	2797	91
SS-2797-W1A5-0.0		11/8/2005	0	0		
SS-2797-S1A2-0.0		11/8/2005	0	0		
SS-2797-E1A4-0.0		11/8/2005	0	0		
SS-2797-N1B5-0.0	CS-2797-B-COMP	11/8/2005	0	3	2797	110
SS-2797-W1B8-0.0		11/8/2005	0	3		
SS-2797-E1B7-0.0		11/8/2005	0	3		
SS-2797-S1B5-0.0		11/8/2005	0	3		
SS-2797-N1C8-0.0	CS-2797-C-COMP	11/8/2005	0	6	2797	55
SS-2797-W1C11-0.0		11/8/2005	0	6		
SS-2797-S1C8-0.0		11/8/2005	0	6		
SS-2797-E1C10-0.0		11/8/2005	0	6		
SS-2643-N1A1-0.0	CS-2643-A-COMP	11/8/2005	0	0	2643	84
SS-2643-S1A2-0.0		11/8/2005	0	0		
SS-2585-E1A4-0.0	CS-2585-A-COMP	11/8/2005	0	0	2585	120
SS-2585-N1A4-0.0		11/8/2005	0	0		
SS-2585-W1A3-0.0		11/8/2005	0	0		
SS-2585-S1A3-0.0		11/8/2005	0	0		
SS-2503-E1A2-0.0	CS-2503-A-COMP	11/8/2005	0	0	2503	240
SS-2503-W1A4-0.0		11/8/2005	0	0		
SS-2155-E1A3-0.0	CS-2155-A-COMP	11/8/2005	0	0	2155	440
SS-2155-S1A4-0.0		11/8/2005	0	0		
SS-2155-N1A3-0.0		11/8/2005	0	0		
SS-2155-W1A3-0.0		11/8/2005	0	0		
SS-2155-S1B7-0.0	CS-2155-B-COMP	11/8/2005	0	3	2155	260
SS-2155-W1B6-0.0		11/8/2005	0	3		
SS-2155-E1B6-0.0		11/8/2005	0	3		
SS-2155-N1B6-0.0		11/8/2005	0	3		
SS-2155-S1C10-0.0	CS-2155-C-COMP	11/8/2005	0	6	2155	150
SS-2155-E1C9-0.0		11/8/2005	0	6		
SS-2155-N1C9-0.0		11/8/2005	0	6		
SS-2155-W1C9-0.0		11/8/2005	0	6		
SS-1888-S1A2-0.0	CS-1888-A-COMP	11/8/2005	0	0	1888	390
SS-1888-E1A1-0.0		11/8/2005	0	0		
SS-1888-W4A4-0.0		11/8/2005	0	0		
SS-1888-N1A2-0.0		11/8/2005	0	0		
SS-1901-E1A2-0.0	CS-1901-A-COMP	11/8/2005	0	0	1901	1700
SS-1901-W1A2-0.0		11/8/2005	0	0		
SS-1901-E1A2-0.5	CS-1901-A-0.5	1/10/2006	0.5	0	1901	140
SS-1901-W1A2-0.5		1/10/2006	0.5	0		
SS-1901-E1A2-1.0	CS-1901-A-1.0	1/10/2006	1	0	1901	140
SS-1901-W1A2-1.0		1/10/2006	1	0		
SS-1905-E1A2-0.0	CS-1905-A-COMP	11/8/2005	0	0	1905	120
SS-1905-W1A2-0.0		11/8/2005	0	0		

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Discrete Sample ID	Composite Sample ID	Date	Depth (ft. bgs)	Step-Out Distance from Dripline (feet)	Building No.	Lead (mg/kg)
SS-1943-E1A3-0.0	CS-1943-A-COMP	11/8/2005	0	0	1943	290
SS-1943-S1A3-0.0		11/8/2005	0	0		
SS-1943-N1A4-0.0		11/8/2005	0	0		
SS-1943-W1A3-0.0		11/8/2005	0	0		
SS-1943-E1B6-0.0	CS-1943-B-COMP	11/8/2005	0	3	1943	160
SS-1943-S1B6-0.0		11/8/2005	0	3		
SS-1943-W1B6-0.0		11/8/2005	0	3		
SS-1943-N1B7-0.0		11/8/2005	0	3		
SS-1943-E1C9-0.0	CS-1943-C-COMP	11/8/2005	0	6	1943	170
SS-1943-S1C9-0.0		11/8/2005	0	6		
SS-1943-N1C10-0.0		11/8/2005	0	6		
SS-1943-W1C9-0.0		11/8/2005	0	6		
SS-2114-W1A2-0.0	CS-2114-A-COMP	11/8/2005	0	0	2114	110
SS-2114-E1A2-0.0		11/8/2005	0	0		
SS-1787-S1A3-0.0	CS-1787-A-COMP	11/8/2005	0	0	1787	1400
SS-1787-E1A3-0.0		11/8/2005	0	0		
SS-1787-W1A3-0.0		11/8/2005	0	0		
SS-1787-N1A4-0.0		11/8/2005	0	0		
SS-1787-S1A3-0.5	CS-1787-A-0.5	1/10/2006	0.5	0	1787	90
SS-1787-E1A3-0.5		1/10/2006	0.5	0		
SS-1787-W1A3-0.5		1/10/2006	0.5	0		
SS-1787-N1A4-0.5		1/10/2006	0.5	0		
SS-1787-S1A3-1.0	CS-1787-A-1.0	1/10/2006	1	0	1787	80
SS-1787-E1A3-1.0		1/10/2006	1	0		
SS-1787-W1A3-1.0		1/10/2006	1	0		
SS-1787-N1A4-1.0		1/10/2006	1	0		
SS-1787-S1B6-0.0	CS-1787-B-COMP	11/8/2005	0	3	1787	170
SS-1787-E1B6-0.0		11/8/2005	0	3		
SS-1787-W1B6-0.0		11/8/2005	0	3		
SS-1787-N1B7-0.0		11/8/2005	0	3		
SS-1787-E1C8.5-0.0	CS-1787-C-COMP	11/8/2005	0	5.5	1787	140
SS-1787-S1C9-0.0		11/8/2005	0	6		
SS-1787-W1C9-0.0		11/8/2005	0	6		
SS-1787-N1C10-0.0		11/8/2005	0	6		
SS-1973-S1A1-0.0	CS-1973-A-COMP	11/8/2005	0	0	1973	110
SS-1973-W1A2-0.0		11/8/2005	0	0		
SS-1973-E1A2-0.0		11/8/2005	0	0		
SS-1973-E2A2-0.0		11/8/2005	0	0		
SS-1730-E1A2-0.0	CS-1730-A-COMP	11/8/2005	0	0	1730	100
SS-1730-W1A2-0.0		11/8/2005	0	0		
SS-1040-S1A1-0.0	CS-1040-A-COMP	11/8/2005	0	0	1040	290
SS-1040-W1A2-0.0		11/8/2005	0	0		
SS-1040-E1A2-0.0		11/8/2005	0	0		
SS-1040-N1A1-0.0		11/8/2005	0	0		
SS-1068-N1A2-0.0	CS-1068-A-COMP	11/8/2005	0	0	1068	120
SS-1068-S1A2-0.0		11/8/2005	0	0		
SS-1045-S1A2-0.0	CS-1045-A-COMP	11/8/2005	0	0	1045	260
SS-1045-E1A4-0.0		11/8/2005	0	0		
SS-1045-W1A1-0.0		11/8/2005	0	0		
SS-1045-N1A2-0.0		11/8/2005	0	0		

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Discrete Sample ID	Composite Sample ID	Date	Depth (ft. bgs)	Step-Out Distance from Dripline (feet)	Building No.	Lead (mg/kg)
SS-2055-E1A1-0.0	CS-2055-A-COMP	11/9/2005	0	0	2055	97
SS-2055-N1A1.5-0.0		11/9/2005	0	0		
SS-2055-N2A1.5-0.0		11/9/2005	0	0		
SS-2055-N3A1.5-0.0		11/9/2005	0	0		
SS-2392-S1A3-0.0	CS-2392-A-COMP	11/9/2005	0	0	2392	210
SS-2392-W1A3-0.0		11/9/2005	0	0		
SS-2392-E1A3-0.0		11/9/2005	0	0		
SS-2392-N1A4-0.0		11/9/2005	0	0		
SS-2392-S1B6-0.0	CS-2392-B-COMP	11/9/2005	0	3	2392	180
SS-2392-W1B6-0.0		11/9/2005	0	3		
SS-2392-E1B6-0.0		11/9/2005	0	3		
SS-2392-N1B7-0.0		11/9/2005	0	3		
SS-2392-S1C9-0.0	CS-2392-C-COMP	11/9/2005	0	6	2392	580
SS-2392-W1C9-0.0		11/9/2005	0	6		
SS-2392-E1C9-0.0		11/9/2005	0	6		
SS-2392-N1C10-0.0		11/9/2005	0	6		
SS-2903-S1A3-0.0	CS-2903-A-COMP	11/9/2005	0	0	2903	53
SS-2903-E1A3-0.0		11/9/2005	0	0		
SS-2903-N1A4-0.0		11/9/2005	0	0		
SS-2903-W1A4-0.0		11/9/2005	0	0		
SS-2903-S1B6-0.0	CS-2903-B-COMP	11/9/2005	0	3	2903	160
SS-2903-E1B6-0.0		11/9/2005	0	3		
SS-2903-N1B7-0.0		11/9/2005	0	3		
SS-2903-W1B7-0.0		11/9/2005	0	3		
SS-2903-S1C9-0.0	CS-2903-C-COMP	11/9/2005	0	6	2903	150
SS-2903-E1C9-0.0		11/9/2005	0	6		
SS-2903-N1C10-0.0		11/9/2005	0	6		
SS-2903-W1C10-0.0		11/9/2005	0	6		
SS-2250-W1A3-0.0	CS-2250-A-COMP	11/9/2005	0	0	2250	230
SS-2250-E1A3-0.0		11/9/2005	0	0		
SS-2250-E2A3-0.0		11/9/2005	0	0		
SS-2250-N1A4-0.0		11/9/2005	0	0		
SS-2250-W1B6-0.0	CS-2250-B-COMP	11/9/2005	0	3	2250	120
SS-2250-E1B6-0.0		11/9/2005	0	3		
SS-2250-E2B6-0.0		11/9/2005	0	3		
SS-2250-N1B7-0.0		11/9/2005	0	3		
SS-2250-W1C9-0.0	CS-2250-C-COMP	11/9/2005	0	6	2250	130
SS-2250-E1C9-0.0		11/9/2005	0	6		
SS-2250-E2C9-0.0		11/9/2005	0	6		
SS-2250-N1C10-0.0		11/9/2005	0	6		
SS-2376-S1A4-0.0	CS-2376-A-COMP	11/9/2005	0	0	2376	110
SS-2376-W1A6-0.0		11/9/2005	0	0		
SS-2376-E1A5-0.0		11/9/2005	0	0		
SS-2376-E2A2-0.0		11/9/2005	0	0		
SS-3045-E1A5-0.0	CS-3045-A-COMP	11/9/2005	0	0	3045	140
SS-3045-S1A1-0.0		11/9/2005	0	0		
SS-3045-W1A1-0.0		11/9/2005	0	0		
SS-3045-N1A4-0.0		11/9/2005	0	0		

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Discrete Sample ID	Composite Sample ID	Date	Depth (ft. bgs)	Step-Out Distance from Dripline (feet)	Building No.	Lead (mg/kg)
SS-1726-E1A2-0.0	CS-1726-A-COMP	11/9/2005	0	0	1726	74
SS-1726-N1A1-0.0		11/9/2005	0	0		
SS-1726-W1A2-0.0		11/9/2005	0	0		
SS-1726-S1A1-0.0		11/9/2005	0	0		
SS-2213-W1A3-0.0	CS-2213-A-COMP	11/9/2005	0	0	2213	190
SS-2213-N1A2-0.0		11/9/2005	0	0		
SS-2213-S1A4-0.0		11/9/2005	0	0		
SS-2213-E1A2-0.0		11/9/2005	0	0		
SS-2434-E1A4-0.15	CS-2434-A-0.15	1/10/2006	0.15 [1]	0	2434	10
SS-2434-S1A2-0.15		1/10/2006	0.15 [1]	0		
SS-2434-W1A2-0.15		1/10/2006	0.15 [1]	0		
SS-2434-N1A2-0.15		1/10/2006	0.15 [1]	0		
SS-2717-E1A2-0.15	CS-2717-A-0.15	1/10/2006	0.15 [1]	0	2717	22
SS-2717-N1A2-0.15		1/10/2006	0.15 [1]	0		
SS-2717-W1A2-0.15		1/10/2006	0.15 [1]	0		
SS-2717-S1A2-0.15		1/10/2006	0.15 [1]	0		
SS-2925-W1A4-0.15	CS-2925-A-0.15	1/10/2006	0.15 [1]	0	2925	120
SS-2925-N1A1-0.15		1/10/2006	0.15 [1]	0		
SS-2925-S1A3-0.15		1/10/2006	0.15 [1]	0		
SS-2925-E1A3-0.15		1/10/2006	0.15 [1]	0		
Drainage Pathway Samples						
SD-2809-D1-0.0		11/17/2005	0	na	na	31
SD-2721-D1-0.0		11/17/2005	0	na	na	55
SD-2721-D2-0.0		11/17/2005	0	na	na	270
SD-2376-D1-0.0		11/17/2005	0	na	na	110
SD-2367-D1-0.0		11/17/2005	0	na	na	77
SD-2401-D1-0.0		11/17/2005	0	na	na	47
SD-2209-D1-0.0		11/17/2005	0	na	na	62
SD-2235-D1-0.0		11/17/2005	0	na	na	35
SD-2116-D1-0.0		11/17/2005	0	na	na	46
SD-2100-D1-0.0		11/17/2005	0	na	na	140
SD-1040-D1-0.0		11/17/2005	0	na	na	59
SD-1708-D1-0.0		11/17/2005	0	na	na	130
SD-1903-D1-0.0		11/17/2005	0	na	na	46
SD-1910-D1-0.0		11/17/2005	0	na	na	23
SD-2285-D1-0.0		11/17/2005	0	na	na	35
SD-2260-D1-0.0		11/17/2005	0	na	na	48
SD-2642-D1-0.0		11/17/2005	0	na	na	33
SD-2055-D1-0.0		11/17/2005	0	na	na	110
SD-2714-D1-0.0		11/17/2005	0	na	na	120
SD-2917-D1-0.0		11/17/2005	0	na	na	54

Note:
1. Sample collected immediately below 2-inch thick asphalt pavement.

Abbreviations:
ft. bgs: feet below ground surface
mg/kg: milligrams per kilogram
na: not applicable

TABLE 2
Summary Of Laboratory Quality Control Parameters
Removal Action Work Plan for Soil Impacted with Lead-Based Paint

Method	Parameter	QC Performed	Frequency	Acceptance Criteria
SW6010B (ICP)	Lead (total)	Reporting limit	All samples	1 mg/kg
		Method Blank	5% (one per batch of 20 or fewer samples)	<PQL for all analytes
		Laboratory Control Spike and Laboratory Control Spike Duplicate	5% (one per batch of 20 or fewer samples)	Accuracy (recovery): 80 to 120% Precision (RPD): 20%

Notes:

ICP: inductively coupled plasma
mg/kg: milligrams per kilogram
PQL: practical quantitation limit (laboratory-specific)
RPD: relative percent difference

One batch of samples submitted to the laboratory will be reported with a Level 3 quality control data package. The remaining samples will be reported with Level 2 quality control data.

FIGURES

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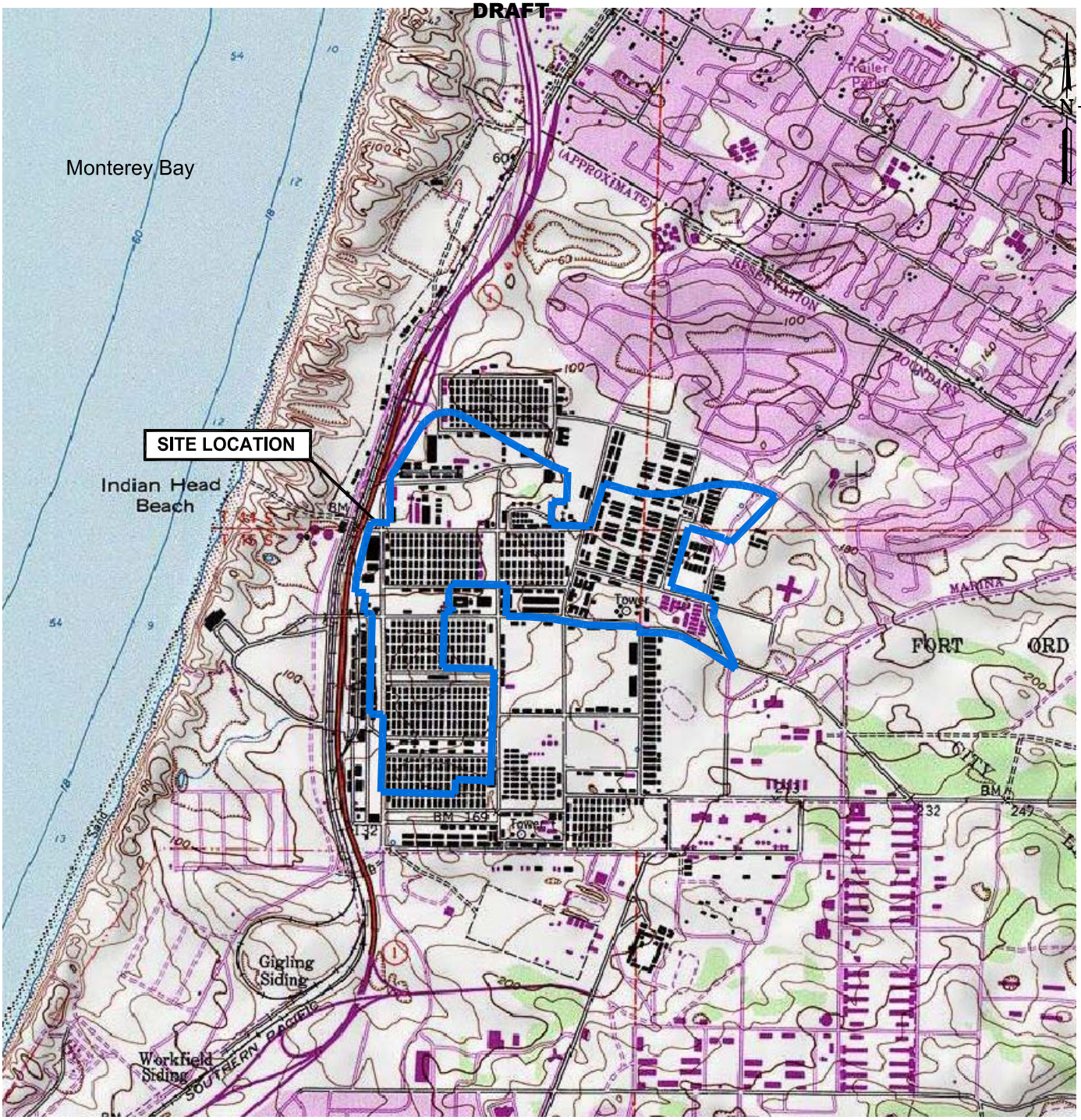

Scale 1:24,000

1 1/2 0 1 Mile

1000 0 1000 2000 3000 4000 5000 6000 7000 Feet

1 .5 0 1 Kilometer

Source: National Geographic USGS TOPO! 2000

FIGURE 1
Site Location Map

West and North University Villages
Fort Ord Site
Marina, California

northgate
environmental management, inc.

Project No. 1148.01.A

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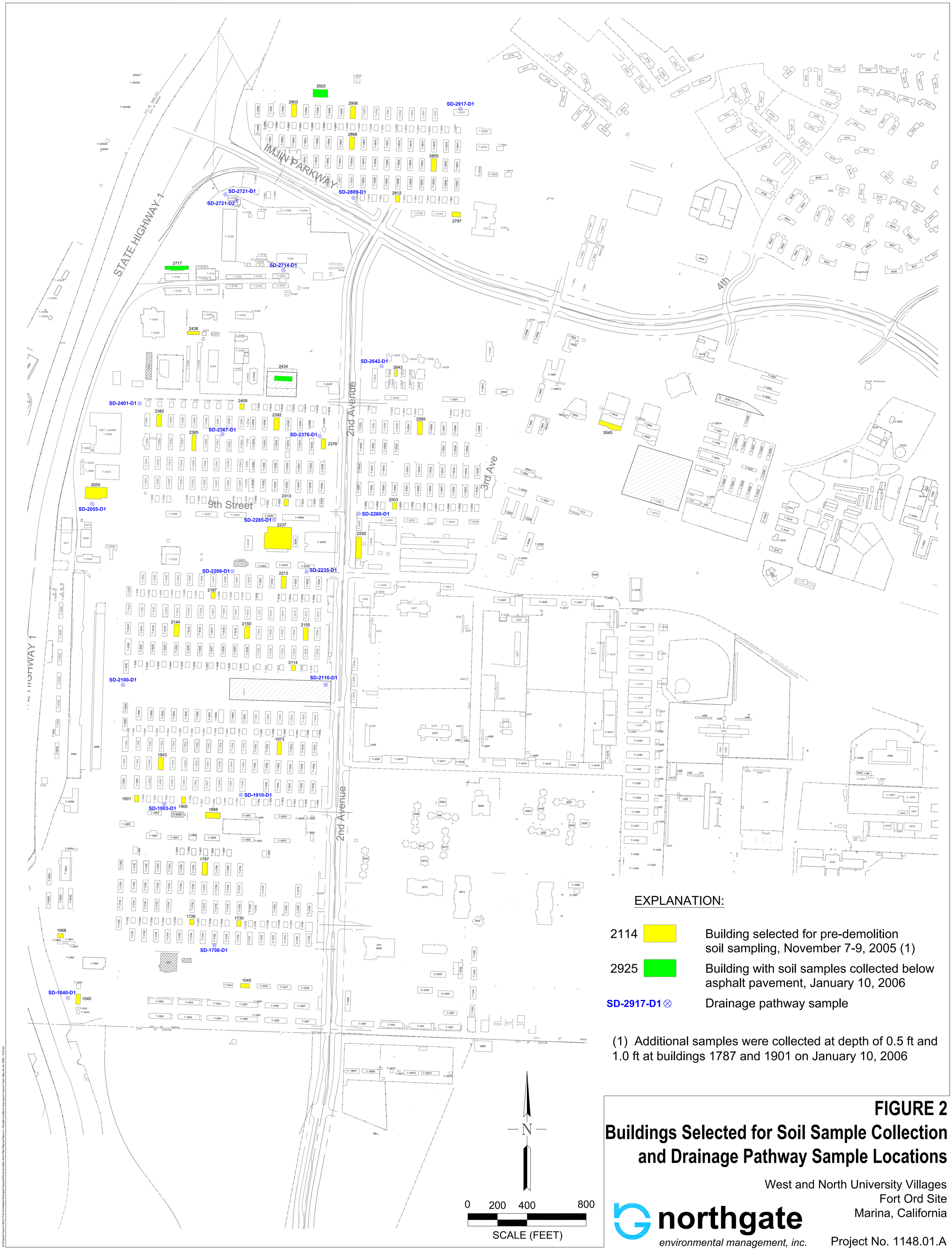
G:\Projects\Temp\1148.01 Fort Ord Marina\Northgate Reports\Removal Action Work Plan\Figures\Figure 1.dwg Layout: Site Location User: oleg Jan 19, 2006 - 2:20pm



EXPLANATION:

2114	Building selected for pre-demolition soil sampling, November 7-9, 2005 (1)
2925	Building with soil samples collected below asphalt pavement, January 10, 2006
SD-2917-D1 ⊗	Drainage pathway sample

(1) Additional samples were collected at depth of 0.5 ft and 1.0 ft at buildings 1787 and 1901 on January 10, 2006

FIGURE 2
Buildings Selected for Soil Sample Collection and Drainage Pathway Sample Locations

West and North University Villages
Fort Ord Site
Marina, California

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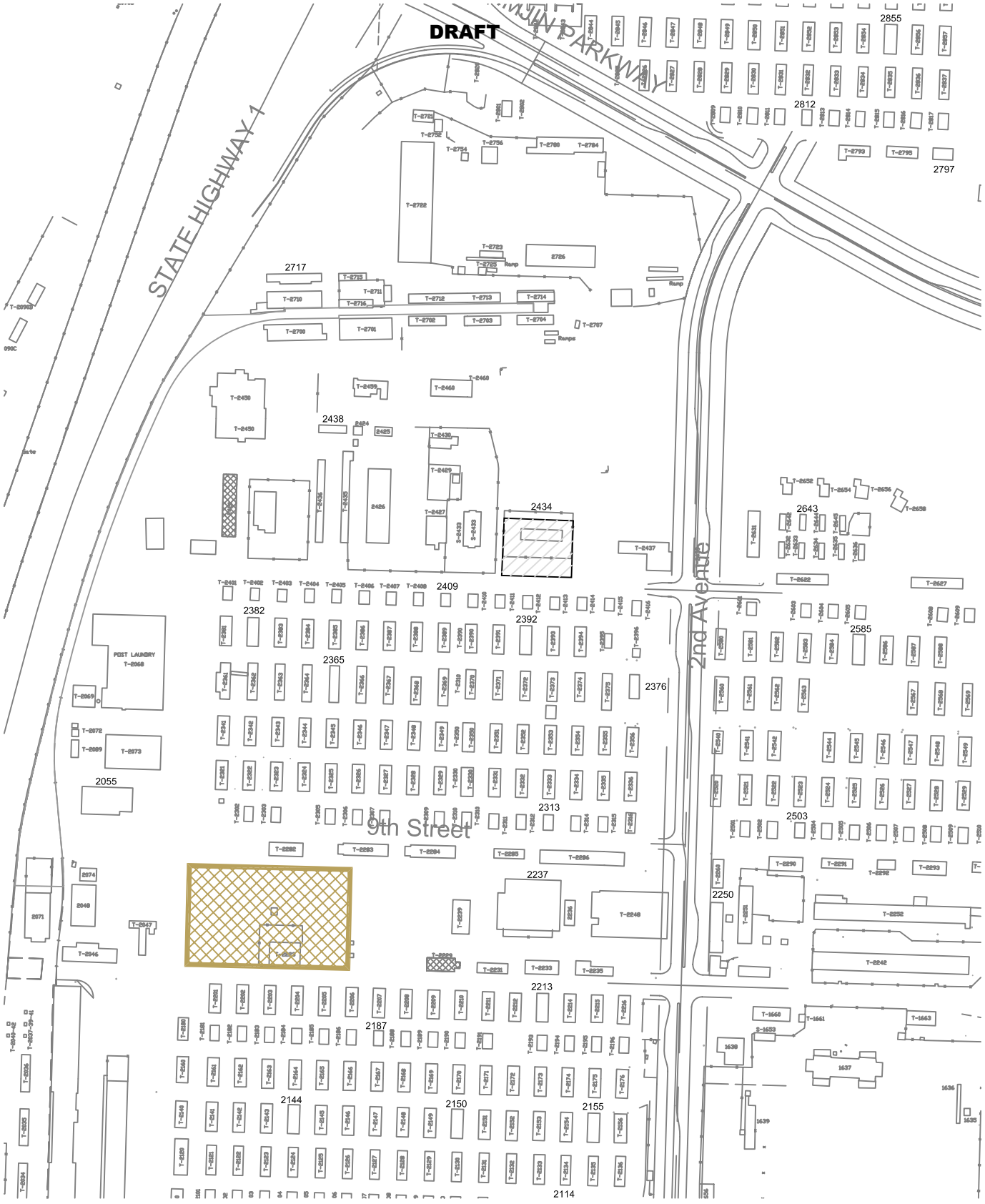

Figure 3
Location of Stockpile Area

West and North University Villages
Fort Ord Site
Marina, California

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G:\Projects\Temp\1148.01 Fort Ord Marina\Northgate Reports\Removal Action Work Plan\Figures\Figure 3 - Stockpile Location.dwg Layout: Stockpile User: dleg Jan 30, 2006 - 5:27pm

Maneuvers		Distance
START	1: Start out going EAST on 8TH ST toward AKINS ALY.	0.2 miles
	2: Turn LEFT onto 2ND AVE.	0.4 miles
	3: Turn LEFT onto IMJIN PKWY.	0.2 miles
NORTH 1	4: Merge onto CA-1 N.	6.1 miles
EAST 156	5: Merge onto CA-156 E via EXIT 414B toward CASTROVILLE / US-101 / SAN JOSE.	6.4 miles
NORTH 101	6: Merge onto US-101 N toward HOLLISTER / SAN FRANCISCO.	47.8 miles
NORTH 680	7: Merge onto I-680 N toward SACRAMENTO.	30.0 miles
EAST 580	8: Merge onto I-580 E toward STOCKTON.	12.2 miles
EXIT	9: Take the exit toward N GREENVILLE RD / ALTAMONT PASS RD.	0.2 miles
	10: Turn LEFT onto SOUTHFRONT RD.	0.3 miles
	11: Turn LEFT onto GREENVILLE RD.	0.3 miles
	12: Turn RIGHT onto ALTAMONT PASS RD.	3.2 miles
END	13: End at 10840 Altamont Pass Rd Livermore, CA 94551-9722, US	

Total Est. Time: 1 hour, 48 minutes Total Est. Distance: 107.89 miles

FIGURE 4
Map Showing Route to Altamont Landfill
West and North University Villages
Fort Ord Site
Marina, California

northgate environmental management, inc.

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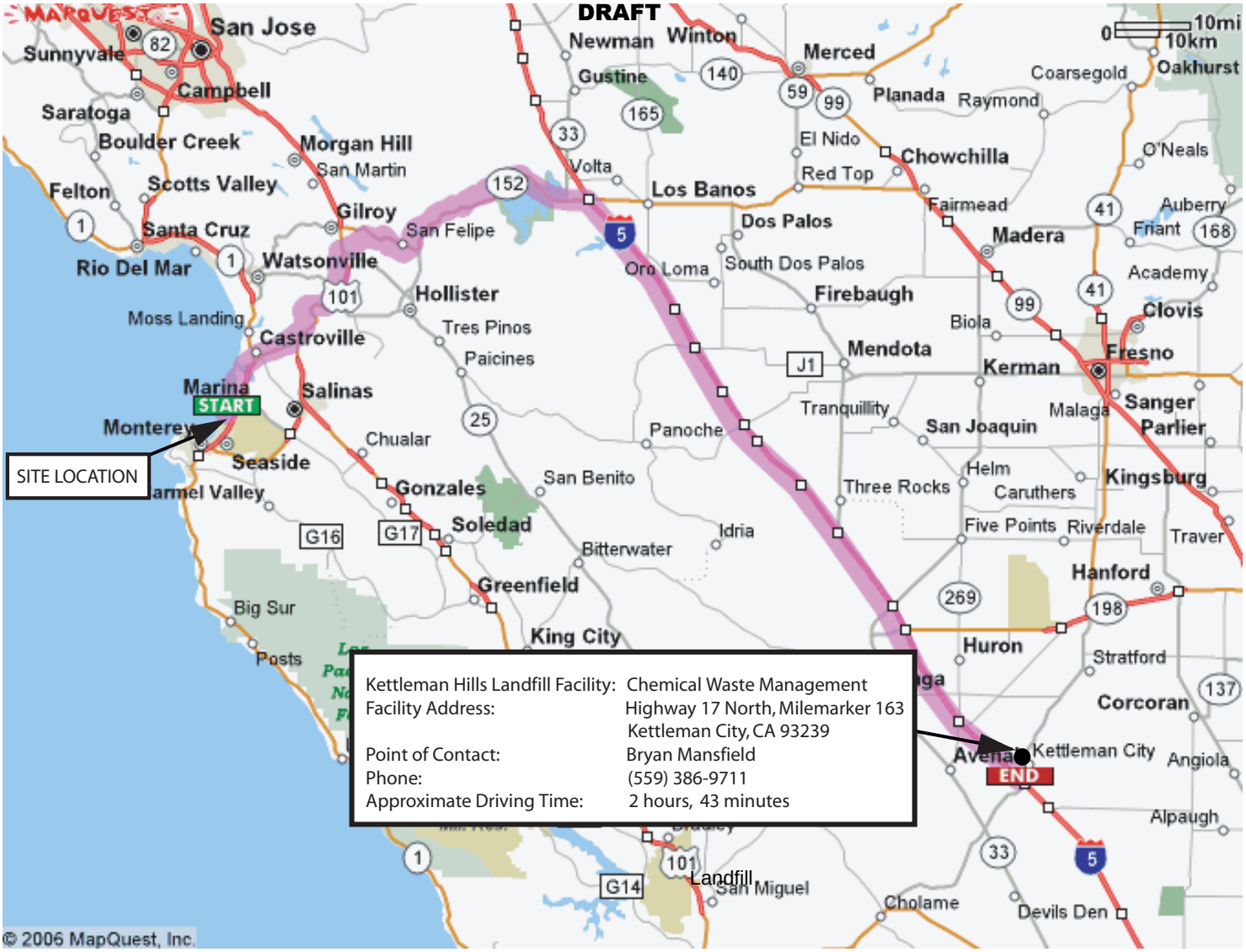

Maneuvers		Distance
START	1: Start out going EAST on 8TH ST toward AKINS ALY.	0.2 miles
	2: Turn LEFT onto 2ND AVE.	0.4 miles
	3: Turn LEFT onto IMJIN PKWY.	0.2 miles
NORTH 1	4: Merge onto CA-1 N.	6.1 miles
EAST 156	5: Merge onto CA-156 E via EXIT 414B toward CASTROVILLE / US-101 / SAN JOSE.	6.4 miles
NORTH 101	6: Merge onto US-101 N toward HOLLISTER / SAN FRANCISCO.	16.6 miles
RAMP	7: Take the CA-25 S ramp toward HOLLISTER.	0.1 miles
	8: Turn LEFT onto CA-25 / BLOOMFIELD AVE.	0.6 miles
	9: Turn LEFT onto BLOOMFIELD AVE / CR-G7.	3.2 miles
EAST 152	10: Turn RIGHT onto PACHECO PASS HWY / CA-152 E. Continue to follow CA-152 E.	35.7 miles
SOUTH 5	11: Merge onto I-5 S toward LOS ANGELES.	94.0 miles
EXIT	12: Take the CA-41 exit toward KETTLEMAN CITY / PASO ROBLES.	0.3 miles
NORTH 41	13: Turn LEFT onto CA-41 N.	1.9 miles
	14: Turn LEFT onto GENERAL PETROLEUM AVE.	<0.1 miles
END	15: End at Kettleman City, CA US	

Total Est. Time: 2 hours, 43 minutes Total Est. Distance: 166.52 miles

FIGURE 5

Map Showing Route to Kettleman Hills Landfill

West and North University Villages
Fort Ord Site
Marina, California

northgate environmental management, inc.

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